

**NUTRIENT STANDARD  
MENU PLANNING (NSMP)  
AND  
ASSISTED NUTRIENT  
STANDARD MENU  
PLANNING (ANSMP)**



## CHAPTER 14

### NSMP AND ASSISTED NSMP

NSMP and ANSMP .....	14.1
Nutrient Standards .....	14.1
Additional Idaho Standards .....	14.1
Menu Item Definition .....	14.2
Guidelines for Offer versus Serve in NSMP .....	14.2
Selecting the Correct Age/Grade Grouping.....	14.3
Required Grade Groups .....	14.3
Custom Age Groups.....	14.4
Optional Age Groups.....	14.4
Optional Age Nutrient Standards for NSMP & Assisted NSMP – Breakfast.....	14.5
Optional Age Nutrient Standards for NSMP & Assisted NSMP – Lunch .....	14.5
Weekly Averages .....	14.6
School Week Definition .....	14.6
Weighted Nutrient Analysis .....	14.6
Choices .....	14.6 – 14.7
Combination Meal Nutrient Standards .....	14.7 – 14.9

## NSMP and ANSMP

With NSMP and ANSMP, any food in any quantity may be used to meet the Nutrient Standards, unlike Enhanced Food Based Menus, where components from specific food groups and in specific quantities must be planned. Reimbursable meals are defined as those meeting the nutrient standards for the appropriate age/grade groups when averaged over a school week.

NSMP must be analyzed using a USDA approved software program. A list of approved software programs can be found at <http://healthymeals.nal.usda.gov/cndatabase.html> . When averaged over a period of one week, the menus must meet the Nutrient Standards listed below.

### NUTRIENT STANDARDS

Nutrient Standards	K-12	K-6	Grades 7-12	
	Breakfast	Lunch	Breakfast	Lunch
Energy Allowances	554	664	618	825
Total fat (g) <sup>3</sup>	18 <sup>1</sup>	22 <sup>1</sup>	21 <sup>1</sup>	28 <sup>1</sup>
Total saturated fat (g) <sup>3</sup>	6 <sup>2</sup>	7 <sup>2</sup>	7 <sup>2</sup>	9 <sup>2</sup>
Protein (g)	10	10	12	16
Calcium (mg)	257	286	300	400
Iron (mg)	3.0	3.5	3.4	4.5
Vitamin A (RE)	197	224	225	300
Vitamin C (mg)	13	15	14	18

<sup>1</sup>Total fat not to exceed 30 percent of total calories over a school week.

<sup>2</sup>Saturated fat not to exceed 10 percent of total calories over a school week.

<sup>3</sup>The grams of fat will vary depending on the actual level of calories offered

Remember these are weekly averages. **It is very difficult to meet these standards on a daily basis**; so stay close to these goals daily and it will be easier to achieve the goals in a week's time. If menus exceed fat or Calories on one day and are low in fat and Calories another day, the average over a week's time should balance out close to the goal averages identified in the chart.

#### Additional Idaho Standards

Sodium: 2mg/Kcal  
 Fiber: 1gm/100Kcals  
 Cholesterol: 75mg – Breakfast - All Grades  
 100mg – Lunch - All Grades

## Menu Item Definition

In NSMP, the menu planner is dealing with **menu items** instead of food components. A menu item may be a single food or combination of foods. In NSMP, meals are required to have *at least three menu items* for lunch and for breakfast. There are three categories of menu items:

- Entrees
- Milk
- Side Dishes
  - ❑ Lunch must include at least an entree, milk and one side dish.
  - ❑ Breakfast must include milk and two other menu items.
  - ❑ Breakfast does not have an entree.
  - ❑ Condiments are not considered menu items, but must be included in the nutrient analysis.
  - ❑ The determination of whether a food can be counted as one menu item or two depends on how it is **served** and written on the menu. (See examples below.)

NSMP and Assisted NSMP	
One Menu Item	Two Menu Items
Hamburger Patty on a Bun with fixings	Hamburger Patty and Bun Fixings
Turkey and Gravy on Mashed Potatoes	Turkey and Gravy Mashed Potatoes
Taco Grande (Meat, Cheese, Tomato, Lettuce)	Taco Grande (Meat, Shell) Toppings (Cheese, Tomato, Lettuce)

## Guidelines for Offer versus Serve in NSMP

In order to have a reimbursable lunch, three menu items must be offered and students may select two items - **one must be the entree**. If more than three items are offered, the students may decline no more than two items.

At breakfast, there is no entree. Only one item may be declined regardless of how many items are offered.

A kit from USDA Team Nutrition containing additional information on Offer versus Serve was mailed to each NSLP sponsor in 2005. This training manual may be downloaded at: [http://www.fns.usda.gov/tn/Resources/offer\\_vs\\_serve.html](http://www.fns.usda.gov/tn/Resources/offer_vs_serve.html). May need to begin with <http://www.fns.usda.gov> then add the remaining information of the address.

## Selecting the Correct Age/Grade Grouping

The caloric and nutrient needs of children vary by their age, sex, size, and activity level. The caloric standards for breakfast and lunch are estimates of the median energy need.

The grade structure of all schools may not match the established Nutrient Standard grade or age groups. When planning NSMP, menu planners must be able to select or create Nutrient Standards, which are based on the grade or age structure of their school.

If only one age or grade is outside the established levels, a school or group of schools may use the Nutrient Standard levels for the majority of children. However, when more than one grade or age is outside of the established levels, the menu planner should use two of the required groups or **customize an age group**, following regulations.

If Age/Grade Groupings Differ:

- Use two grade standards or;
- Create a new age standard or;
- If only one age or grade is outside the age/grade grouping use majority standard.
- **Menus need to be analyzed whenever there is a variation in portion size.**

## Required Grade Groups

For example, when using the required grade groups chart, if there is more than one grade beyond grade 6 or below grade 7, two grade groups for lunch should be used. Grade K-8 or grade 5-8 schools should have at least two grade groups for menu planning. If more than one age/grade is outside the established range of the grade grouping, a SFA must use two menus and two nutrient standards.

Grade K-7 or grade 6-12 schools, however, could include the one grade outside the group in the predominant grades K-6 and grades 7-12 groups, respectively. However, SFAs are cautioned to consider this option carefully when the age/grade that is outside the majority would be a higher age/grade because the nutrient and calorie needs of the older children may not be met.

If the menu planner is planning centralized menus for several schools with grades within the K-6 range, even though the schools have varying age or grade groups, all of the menus may be planned for grades K-6 Nutrient Standard rather than customizing a standard for each school. However, if all menus are planned from grades K-6 Nutrient Standards, then all students will receive the same portion sizes on those menus.

Minimum Calorie and Nutrient Levels for School Lunch (School week averages for age/grade/groups)				
Nutrient Standards	Pre-School	Grades K-6	Grades 7-12	Grades K-3 Option
Energy Allowances(calories)	517	664	825	633
Total fat (g) <sup>3</sup>	17 <sup>1</sup>	22 <sup>1</sup>	28 <sup>1</sup>	21 <sup>1</sup>
Total saturated fat (g) <sup>3</sup>	6 <sup>2</sup>	7 <sup>2</sup>	9 <sup>2</sup>	7 <sup>2</sup>
Protein (g)	7	10	16	9
Calcium (mg)	267	286	400	267
Iron (mg)	3.3	3.5	4.5	3.3
Vitamin A (RE)	150	224	300	200
Vitamin C (mg)	14	15	18	15

<sup>1</sup>Total fat not to exceed 30 percent of total calories over a school week.

<sup>2</sup>Saturated fat not to exceed 10 percent of total calories over a school week.

<sup>3</sup>The grams of fat will vary depending on the actual level of calories offered

### Optional Age Groups

For NSMP, schools have the option to provide the calorie and nutrient levels for school lunches and breakfasts for the age groups below:

- Ages 3-6
- Ages 7-10
- Ages 11-13
- Ages 14-17

Using these age groups allows the menu planner to develop menus that are more accurately targeted to the nutritional needs of children.

### Custom Age Groups

Menu planners may also develop customized groups corresponding to the **age groups** in their school. **This is the recommended method**, as it most accurately reflects the nutritional needs of the children. Customized groupings may span all ages.

At least two Nutrient Standards should be used with any school that has grades K-12. Where such a broad spectrum of ages and grades are present, the standard should be changed at or right above the sixth grade level.

## Optional Age Nutrient Standards for NSMP and Assisted NSMP Breakfast

<b>Minimum Calorie and Nutrient Standards for School BREAKFAST (School week averages for age groups)</b>				
<b>Calorie and Nutrient Standards</b>	<b>Ages 3-6</b>	<b>Ages 7-10</b>	<b>Ages 11-13</b>	<b>Ages 14 &amp; Older</b>
Energy Allowances/Calories	419	500	588	625
Total Fat (g) <sup>3</sup>	14 <sup>1</sup>	17 <sup>1</sup>	20 <sup>1</sup>	21 <sup>1</sup>
Saturated Fat (g) <sup>3</sup>	5 <sup>2</sup>	6 <sup>2</sup>	7 <sup>2</sup>	7 <sup>2</sup>
RDA for Protein (g)	5.50	7.00	11.25	12.5
RDA for Calcium (mg)	200	200	300	300
RDA for Iron (mg)	2.5	2.5	3.4	3.4
RDA for Vitamin A (RE)	119	175	225	225
RDA for Vitamin C (mg)	11.00	11.25	12.50	14.40

<sup>1</sup>Total fat not to exceed 30 percent of total calories over a school week.

<sup>2</sup>Saturated fat not to exceed 10 percent of total calories over a school week.

<sup>3</sup>The grams of fat will vary depending on the actual level of calories offered.

## Optional Age Nutrient Standards for NSMP and Assisted NSMP Lunch

<b>Minimum Calorie and Nutrient Standards for School LUNCH (School week averages for age groups)</b>				
<b>Calorie and Nutrient Standards</b>	<b>Ages 3-6</b>	<b>Ages 7-10</b>	<b>Ages 11-13</b>	<b>Ages 14 &amp; Older</b>
Energy Allowances/Calories	558	667	783	846
Total Fat (g) <sup>3</sup>	19 <sup>1</sup>	22 <sup>1</sup>	26 <sup>1</sup>	28 <sup>1</sup>
Saturated Fat (g) <sup>3</sup>	6 <sup>2</sup>	7 <sup>2</sup>	9 <sup>2</sup>	9 <sup>2</sup>
RDA for Protein (g)	7.3	9.3	15.0	16.7
RDA for Calcium (mg)	267	267	400	400
RDA for Iron (mg)	3.3	3.5	4.5	3.3
RDA for Vitamin A (RE)	158	233	300	300
RDA for Vitamin C (mg)	14.6	15.0	16.7	19.2

<sup>1</sup>Total fat not to exceed 30 percent of total calories over a school week.

<sup>2</sup>Saturated fat not to exceed 10 percent of total calories over a school week.

<sup>3</sup>The grams of fat will vary depending on the actual level of calories offered.

## Weekly Averages

After being planned, the menus will be analyzed over a school week using a weighted nutrient analysis with an average based on the projected serving of each menu item.

## School Week Definition

For the purposes of NSMP, a school week is defined as a minimum of three consecutive days and a maximum of seven consecutive days. If there are fewer than three consecutive days in a week (from Sunday to Saturday), those menus may be combined with either the previous or the following week.

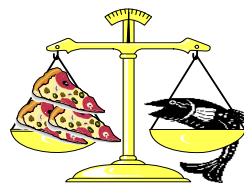
For example, this would be applied when there are only two days of school during the week of Thanksgiving. Those two days could be combined with either the week before or the week after Thanksgiving. The same situation might arise around other holiday periods or during the first and last weeks of school.

By combining a menu week that only has one or two days in it with another week, the menu planner avoids problems in meeting the Nutrient Standards that can arise out of analyzing such a small sample of meals.

## Weighted Nutrient Analysis

Menus will be analyzed and compared to the Nutrient Standards using weighting based on the projected servings of each menu item and condiment. Menu items that are served to more students provide a larger proportion of the nutrients for that meal. Therefore, the nutrients in that menu item should be given more weight.

Menu items served more often provide larger proportion of nutrients.



## Choices

When a variety of entrees is offered, the entrees must be weighted according to the numbers of frequently chosen items, e.g., out of 125 lunches, if 75 choose the main line, 30 choose the salad bar and 20 choose the hamburger meal, the Nutrient Analysis would need to be weighted accordingly. However, side dishes are not weighted. This weighting procedure would be difficult by hand, but is easily done with the nutrient analysis software. It requires observing the choice combinations several times to arrive at the frequencies to use in weighting. Many high schools will require weighting for all their choices.



If a salad bar or other special choice bar is used as part of a meal, a recipe must be developed for the particular bars. Include all the served items in the amounts usually consumed. For instance, the production record would reflect everything placed on the bar. By subtracting the amount leftover the amount consumed would be remaining. From there estimate or calculate how many students made choices from the bar. The recipe would be the total of all consumed from the bar, divided by the number of students that participated at the bar. Minimum quantities need to be established. When students are allowed to serve themselves, the SFA must determine an appropriate minimum quantity that students must select for the menu item to be counted as part of a reimbursable meal. The quantity must be identified for the students and the cashier on the menu and/or on the self-serve bar.

Leftovers from the regular line may be served the following day on the salad bar without reanalysis.

A recipe for the variety of milk you offer should be included in the analysis. For example: Using the milk invoice, it is determined that 75% of the milk bought is 1% chocolate, 20% is 1% white, and 5% is non-fat white. The recipe will show that the portion size is 8oz or  $\frac{1}{2}$  pint and the number of portions is 100. Add the ingredients (all the types of milk) and use the percentage as the quantity. Now this recipe can be used everyday in the menu planning.

### **Combination Meal Nutrient Standards**

NSMP and ANSMP allow schools the option of combining the total nutrients for breakfast and lunch together in proportion to the participation in each meal. Your software system may have the capability to combine your breakfast and lunch analysis in proportion to your participation. This is an optional feature of USDA-approved software.

Please note that combining menus is permitted when breakfast and lunch menus are developed using the same age/ grade groupings.

Example: Main Street Elementary Breakfast K-5 can be combined with Main Street Elementary Lunch K-5.

**Not Allowed:** Main Street Elementary Lunch K-5 combined with Central Middle School Lunch 6-8.

Two lunch menus are not allowed to be combined.

**Not Allowed:** Main Street Elementary Lunch K-5 combined with Elm Street Elementary Breakfast K-3. Two different age/grade groupings can not be combined.

The USDA allows combining but does not encourage it. USDA would like to see individual menus meet the standards.

The SFA that decides to combine the nutrient analysis of breakfast/lunch must:

- Project total student meals and the planned production numbers for menu items for both breakfast and lunch menus using history of past student selections in preparation for conducting weighted analysis.
- Use USDA-approved software that can combine and provide a weighted nutrient analysis of breakfast and lunch menus. All software will not do a combined nutrient analysis; it is an optional function. If the SFA/school wishes to combine breakfast and lunch analysis, they should select software that will perform this function. In software that has this capability, the software calculates a **combined nutrient standard** for breakfast and lunch.
- The SFA, when conducting nutrient analysis needs to compare the combined analyses to the combined nutrient standard to evaluate if the nutrient standard is being met for the applicable age/grade groups.

**When an SFA/school using the NSMP approach combines the breakfast and lunch analysis, which grade groups do they use? Do they use the breakfast grade groups or the lunch grade groups?**

The SFA/school uses the age/grade grouping that is being used for menu planning for each type meal. SFAs/schools are reminded that at **least two age/grade groupings must be used for NSMP for lunch**. For example, if an SFA/school uses two grade groups for lunch menus (K-6 and 7-12), and one grade group for breakfast menus (K-12), they would have two combined analyses to conduct. The SFA must be able to separate the planned meals/menu items for breakfast into the 2 grade groups for lunch, i.e. the number of planned breakfasts/menu items for students in grades K-6 and the number of planned breakfasts/menu items for students in grades 7-12. The two combined analyses would be as follows:

- Combined analyses for K-6 lunch and K-12 breakfast (using the number of planned breakfasts and planned lunches for K-6 grade groups)
- Combined analyses for 7-12 lunch and K-12 breakfast (using the number of planned breakfasts and planned lunches for 7-12 grade groups)

In a combined analysis, SFAs/schools must *only* include the planned number of breakfasts for those age/grade groups that *correspond* to the lunch age/grade groups, i.e. **the combined nutrient analysis must compare exact grades of breakfast and lunch**. If not, breakfast data will be weighted too heavily. In the example described above, the SFA/school would use the following procedure in combining the analysis:

**Sample School**

	Breakfast	Lunch
Total Participation	400	650
K-6	250	400
7-12	150	250

- When entering the number of reimbursable meals (participants) for the combined analyses for **K-6 lunch** and K-12 breakfast, the SFA/school would project 250 meals for the SBP and 400 meals for the NSLP.
- When entering the number of reimbursable meals (participants) for the combined analyses for **7-12 lunch** and K-12 breakfast, the SFA/school would project 150 meals for the SP and 250 meals for the NSLP.

**If an SFA that is using a nutrient-based menu planning approach conducts a combined analysis of breakfast and lunch, must the State agency review breakfast and lunch or just review lunch?**

State agencies are required to validate the nutrient analysis(es). If the SFA has combined the analysis for breakfast and lunch in order to meet the nutrient targets, the State agency will need to validate the combined analysis, including determining if the number of projected meals for each meal service was determined and entered correctly, if the recipes were entered correctly, if the correct food items were selected, etc. This would require the State agency to review both meals.

**If breakfast and lunch are combined for analysis for a school on NSMP, are they always required to combine them for analysis?**

Schools on NSMP are allowed to combine the nutrient analysis for breakfast and lunch. Technically, as long as they are consistent within a school week, the school could combine one week and conduct separate analyses for the next week. This would require the SFA/school to manipulate the software back and forth to achieve this vacillation and to document from week to week which approach was used. FNS does not recommend this procedure. Disadvantages are:

- possible increase in error from changing procedure,
- tracking procedure from week to week, and
- inability to identify which meal falls short in nutrients—breakfast or lunch.